

XLV.—On *Trachinus draco* and *T. vipera*.

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ON referring to a few among the many ichthyologists who have written upon these two species of British weever-fishes or *Trachinus* one cannot help observing some differences of opinion. Willughby and Ray ('*Historia Piscium*,' 1686) recorded the "weever" or "weever," *Draco marinus* (p. 288, t. S 10. fig. 1), which showed D. 5 | 29, and the "otterpike," *Draco marinus species altera* (p. 289, t. S 10. fig. 2), having D. 6 | 19. Although one was termed the "weever" and the other the "otterpike," names by which the two British forms are to this day distinguished by our fishermen, still an error existed in the figures, as was pointed out by De la Roche in the '*Annales du Muséum d'Histoire Naturelle*,' xiii. 1809. This latter author observed that the first figure in the '*Historia Piscium*' was doubtless *Trachinus draco*, but that the second was *T. lineatus*, Bloch-Schneider, 1801, p. 55, tab. 10. But Cuvier and Valenciennes, in their '*Histoire Naturelle des Poissons*,' observed that De la Roche had also been in error respecting this second figure, as it neither represented the "otterpike" of Britain nor *T. lineatus* of Schneider; in fact it was an unnamed form, so was termed *T. radiatus*, Cuv. & Val. Thus, although two British forms of this genus were recognized and described by Willughby and Ray, only one was figured.

Ray ('*Synopsis Methodica Piscium*,' 1713) gave the "weever," page 91, and the "otterpike," page 92, which last, he observed, he had not seen. Pennant ('*British Zoology*,' 1776) correctly figured and described both forms, the "great weever," page 171, plate xxix., showing D. 4 | 29, and the "common weever," page 169, plate xxviii., with D. 5 | 23; but De la Roche erroneously observed they belonged to one species. In Gmelin's '*Linnæus*,' 1788, p. 1157, only one species of this genus was recognized, and that under the designation of *Trachinus draco*. Donovan ('*British Fishes*') figured the "lesser weever," and his example had D. 5 | 25; but following Gmelin he termed it *D. draco*, while Turton ('*British Fauna*,' 1807) appears to have compiled his description from Pennant's "common weever" and Donovan's account and figure. Fleming ('*History of British Animals*,' 1828, pp. 213, 214) described two forms, *T. draco*, "common weaver," D. 5 | 25, and *T. major*, "greater weaver," D. 5 | 32. Cuvier and Valenciennes ('*Histoire Naturelle des Poissons*,' iii. 1829) had *T. draco*, D. 6 | 30, A. 1 | 31, and *T. vipera*,

D. 6 | 24, A. 25. In the first we are told that on part of the head and gill-covers are small scales, but none on the preopercular margins; also that two very striking characters by which these two species may be readily distinguished are the number of soft rays in the second dorsal fin, and that the cheeks of the lesser weever are almost scaleless.

Yarrell ('British Fishes,' ed. i. 1836) gave, vol. i. p. 20, the "great weever," *Trachinus draco*, with a good figure, and respecting the fins says D. 6 | 30; and at p. 25, the "lesser weever," *T. vipera*, D. 5-6 | 24, observing "from an examination of many specimens it is probable that it very seldom exceeds 5 inches in length." Jenyns ('Manual of British Vertebrate Animals,' 1835) added little to the foregoing, but gave the dorsal rays of the "great weever" at 6 | 31, and of the "lesser weever" at 6 | 23-24. Parnell ('Fishes of the Firth of Forth') observed that *T. vipera* was distinguished from *T. draco* by having no spine before the eyes and by the second dorsal fin being composed of twenty-four rays, whereas in the "greater weever" there exists a strong hooked spine before each eye and thirty rays in the second dorsal fin. White ('List of British Fish in the British Museum,' 1851) made no alteration. Günther ('Catalogue of Fishes,' 1860, vol. ii. p. 233) gave *Trachinus draco* with D. 6 | 29-31, and at p. 236 *T. vipera* with D. 6 | 21-23; while in his 'Introduction to the Study of Fishes,' 1880, p. 464, he remarked "On the British coasts two species occur, *T. draco*, the greater weever, attaining to a length of 12 inches, and *T. vipera*, the lesser weever, which grows only to half that size." Couch ('Fishes of the British Islands,' vol. ii. 1877) observed that the smaller species was not known to naturalists until the early part of the present century, for before that time it had generally been confounded with the greater weever both in its form and habits; that it rarely exceeds the length of 4 or 5 inches and is proportionally deeper in the body than the greater weever. McIntosh ('Marine Fauna of St. Andrews,' 1875, p. 173) stated that *T. draco* was frequent on the West Sands after storms, and *T. vipera* not uncommon in the same locality, and brought in by the fishermen. In my 'British Fishes,' 1880-81, I gave the two forms as distinct, and figured both, remarking that *T. draco* had D. 5-6 | 29-31, and *T. vipera* D. 6 | 21-24, while the first had "two small spines at the anterior-superior angle of the orbit," but that in the latter there are "no spines above the orbit." Since then Ogilby recorded his disbelief of the fact that *T. draco* had been taken in Ireland, where, however, *T. vipera* is not rare.

In the Ann. & Mag. Nat. Hist. May 1886, p. 441, Prof.

Mr. Intosh considered that "it is possible that the one is only a young stage of the other and that certain distinctions, such as the absence of spines above the orbit in the smaller form and its greater depth in proportion to its length, disappear with age." At p. 526 of the same volume I made some remarks, which I now propose supplementing, as Mr. Dunn has procured for me two specimens of the "greater weever," *Trachinus draco*, measuring 5.1 and 7.0 inches respectively in length. In my 'British and Irish Fishes,' pl. xxxi., I figured a specimen life-size of the "lesser weever" which measured $4\frac{1}{2}$ inches in length, which I took from a shrimp-net at Weston-super-Mare, and I have seen others nearly an inch longer, while Ogilby has recorded one $6\frac{1}{2}$ inches long from Portrush, in the vicinity of Antrim, while he likewise asserted that the "larger weever" was absent from the Irish coasts.

There is no need to refer again to the greater depth of the smaller species and how it has a lesser number of rays and no spines near the orbit, except for the purpose of remarking upon the two specimens of the *Trachinus draco* recently received. In the first, 7 inches long, the spines at the anterior-superior angle of the orbit were as distinct as in any of the larger specimens which I have seen, while those in the example 5 inches in length had them as prominent as in the larger fish. If, then, *Trachinus vipera* has been observed at $4\frac{1}{2}$, $5\frac{1}{2}$, and $6\frac{1}{8}$ inches in length with no spines near the orbit, while they are well developed in specimens of *Trachinus draco* at 5.1 and 7.0 inches respectively in length, such is a pretty convincing proof that this armature is not consequent upon the augmented size or increased age of the fish. As to fin-rays, both these small examples of *T. draco* had D. 6 | 29, A. 31-32, the first of this latter fin being a spine; but I have never seen a *T. vipera* with more than twenty-four soft rays in the dorsal fin or twenty-six in the anal. The form of the body of these small examples of *T. draco* was not nearly so deep as seen in *T. vipera*. I think we may safely conclude that Linnæus was in error when he included the two forms as one species, and that Fleming, Cuvier and Valenciennes, Yarrell, Jenyns, Parnell, White, Günther, Couch, and others were quite correct in considering that we possess two distinct species; viz. *T. draco*, D. 5-6 | 29-31, and *T. vipera*, D. 6 | 21-24, the first with orbital spines, the second without them.

Cheltenham,
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